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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,399	08/26/2003	Ben-Zion Dolitzky	1662/60903	6089

26646 7590 08/30/2005

KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

BERCH, MARK L

ART UNIT	PAPER NUMBER
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1624

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,399

Applicant(s)

DOLITZKY ET AL.

Examiner

Mark L. Berch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 23, 26, 30, 31 and 33-43 is/are rejected.
- 7) ☒ Claim(s) 20-22, 24-29 and 32 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/24/04</u> . | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 35 is rejected under 35 U.S.C. 102(b) as being anticipated by Harnden 1990, with Harnden 1989 supplemental.

In Harnden 1990, see the preparation in the first full paragraph on page 501. The crystallization is done from water. The claims recite among others, methanol/water. However, no limits are set on the ratio of the two solvents; the claim would read on e.g. one part per billion of methanol in water. However, tiny traces of methanol would be expected to be present, because the starting material was prepared in methanol. Footnote 8 is Harnden 1989, and as seen in the last paragraph of page 1741, the starting material was made in methanol.

Claims 1-10 18-19, 31 are rejected under 35 U.S.C. 102(b) as being anticipated by with Harnden 1989; US 5017701, US 5066805; US 5138057, US 6846927, 6342603, Freerer, 6437125, and WO 200006573.

In Harnden 1989, note the crystallization of (14) from Ethyl acetate/hexane. In US 5017701, note column 7, line 31, where it is crystallized from hot n-butanol; the same is seen in example II-5 of 6342603. In US 5066805, see Column 3, where the solid appears to be prepared by evaporation from a chloroform/methanol solution. In US 5138057, see

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Column 8, lines 11-12 and 33, where it was crystallized from Ethyl acetate/diethyl ether and from n-butanol. In 6846927, the product was recrystallized from n-butanol but then reslurried in n-heptane, stirred and filtered, i.e. triturated with n-heptane. In Freerer, the crystallization was done from hot isopropanol; see last example. A similar procedure was done with in example 9 of 6437125. In WO 200006573, see synthesis example 11, which has trituration with diethyl ether. In Brand, see page 5251, with crystallizing from aqueous acetone.

Insofar as Claim 31 is concerned, the references which recited n-butanol anticipate, and provide further evidence that this is Form II, since the same method is used. Insofar as Claim 18 is concerned, the reference which recites diethyl ether trituration anticipates, and provide further evidence that this is Form I, since the same method is used. Insofar as Claim 30 is concerned, the references which recite isopropanol anticipate, and provide further evidence that this is Form I, since the same method is used.

It is correct that the reference is silent on the specific claim limitations of crystalline form. However, if mere silence were enough, then every anticipation could be overcome by simply putting in some limitation that the reference happened to be silent about, even if the material were exactly the same as the prior art. One could put in a limitation about density, color, melting point, solubility in some obscure solvent, spectroscopic data, and then simply point to the silence of the reference, as applicants have done here. Applicants could insert the limitation "which does not explode upon tapping" and point out the reference says nothing about this limitation at all.

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MPEP 2112 states: "A REJECTION UNDER 35 U.S.C. 102/103 CAN BE MADE WHEN THE PRIOR ART PRODUCT SEEMS TO BE IDENTICAL EXCEPT THAT THE PRIOR ART IS SILENT AS TO AN INHERENT CHARACTERISTIC"

The "INHERENT CHARACTERISTIC" here is the specific crystalline form.

Applicants need to show that their forms really are novel. The section goes on as follows:

"Where applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection."

In addition, with regard to claims 37-43, also note that even if the forms were different, if the excipient is water, then the crystalline form will dissolve, and the exact same solution will be formed regardless of which form was started with.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18, 19, 23, 26 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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1. Claim 23 is garbled. One compound cannot "include" a different compound. Does applicant intend that the starting material form I be contaminated with, or mixed with, some monohydrate?
2. Claim 31 should have "butanol".
3. The term "trituated" in claims 18-19 is indefinite. The word is used in several different ways. It can mean to crush, grind, or pound into fine particles, and this is its conventional meaning. It can mean to pass a solution or suspension through a pipette or needle. It can mean treating something with sonication or freeze pressing. It is also used to refer to a process in which a solid is stirred with a liquid in which it is not soluble. It can even refer to a process in which a material is dissolved in one solvent and the solution is treated with a counter solvent to precipitate.

Claims 11-17, 33-34, 36, 41-43 are rejected under 35 U.S.C. 112, paragraphs 1 and 2, as the claimed invention is not described, or is not described in such full, clear, and exact terms as to enable any person skilled in the art to make and use the same, and/or failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention. Specifically:

The claims drawn to form III are unclear and potentially not enabled. Claim 11 says that this is "famciclovir form III". However, page 8 says that form III is not famciclovir itself, but is the methanol hydrate. Moreover, page 7 says that the ethanol solvate, mentioned in claim 15, has the same XRD pattern. No evidence for this is presented, and it would be extraordinary for two different compounds to have the exact same XRD pattern. If compounds containing methanol and ethanol both had the same pattern, it is more likely

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that these are not true hydrates at all, but are clathrates instead. As a result, it is not clear that solvates are enabled.

Claims 30 and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 30 and 35 contradict each other. According to claim 30, if one uses acetonitrile, acetone and other solvents, one gets Form I. According to claim 35, the exact same process gives the monohydrate. The only way to avoid this is to use isopropanol, which according to the specification example 11 does give a mixture. The problem is that Table 1, runs 9-12 all show that the use of IPA does not give the hydrate at all, but gives just I, mixed with II. Moreover, other solvents such as acetone also fail to give the monohydrate. Applicants need to clarify what produces one and what produces the other, and write the claims accordingly. It is not at all clear that the specification teaches how to make the monohydrate in such a range of solvents, and it is also unclear when IPA gives I and when it gives the monohydrate. Clarification in claim language is required.

Claim 35 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for DMF/water, does not reasonably provide enablement for all other choices. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

The use of non-aqueous solvents makes no sense at all. One cannot make the hydrate without a source of water. Thus, the use of e.g. THF is impossible. Second, Brand

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teaches that the use of aqueous acetone gives famciclovir, not famciclovir hydrate. This then casts doubt on other aqueous solvents except for the aqueous DMF in the example.

Claim Objections

Claims 4-5 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on more than one claim. See MPEP § 608.01(n). Suggested is "any one of" or "claims 1, 2, or 3".

Claim 43 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on more than one claim. See MPEP § 608.01(n). Suggested is "any one of" or "claims 37, 38, 39, 40, 41, or 42".

Claims 26-27 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on more than one claim. See MPEP § 608.01(n). Suggested is "or" in the first line list.

Claim 29 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on more than one claim. See MPEP § 608.01(n). Claim 29 depends on both one of the claim 26 list (18, 20, 22 and 25) and also on claim 8.

Claim 29 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on more than one claim. See MPEP § 608.01(n). Claim 29 depends on both one of the claim 26 list (18, 20, 22 and 25) and also on claim 8.

Claim 25 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on more than one claim. See MPEP § 608.01(n). Claim 25 depends on both claim 1 and also on claim 8.

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Claim 32 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on more than one claim. See MPEP § 608.01(n).

Claim 32 depends on both claim 1 and also on claim 8.


Claims 20-22, 24 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Berch whose telephone number is 571-272-0663.

The examiner can normally be reached on M-F 7:15 - 3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on (571)272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mark L. Berch
Primary Examiner
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8/22/05